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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,378	07/06/2005	Kazushi Mori	033082 M 260	8400

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EXAMINER
STEVENS, THOMAS H

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/541,378	MORI, KAZUSHI
	Examiner	Art Unit	
	Thomas H. Stevens	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 July 2005</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-25</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>06 July 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>07/06/2005</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-25 were examined.

Specification

2.   The disclosure is objected to since the "Summary of Invention" heading is

absent. Furthermore, the Office suggests changing "Best Mode for Carrying Out the

Invention" to "Detailed Description of the Invention". Correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

5.   Claim 23 recites the limitation "the process apparatus" in line 3. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

7.   Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Woods

et al., (US Patent 4,816,208; hereafter Woods). Wood teaches a hybrid parallel/serial

alarm management in which sensor signals are intelligently processed to produce

abnormality indication signals (abstract).

Claim 1. A control system ("control systems",column 12, line 65)comprising: control

means that controls a process (column 14, lines 27) apparatus, which performs a

predetermined process (e.g., abnormal conditions, column 5,line 9)on an object to be

processed (e.g., "material flow process", column 5, line 23), based on information (e.g.,

alarm messages, column 2, lines 5-9) to be detected in the process apparatus

("display...to show current disturbances" column 6, lines 23-28); and alarm generation

("alarm generation", columns 5-6, lines 68,1-3) means which generates an alarm when

the detected information (e.g., alarm messages, column 2, lines 5-9) is off a (if process

can work if required if it is inactive, column 8, lines 31-41) predetermined range

(column 8, line 63), wherein the control means grasps a generation state (spec. pg.

40, generation state, "the number of alarms generated with a predetermine time";

column 3, lines 40 different levels of alarms) of the alarm which is generated from the

alarm generation ("alarm generation", columns 5-6, lines 68,1-3) means, and gives

warning (e.g., alarm via detectors, column 2, lines 20-29) when the generation state

(spec. pg. 40, generation state, "the number of alarms generated with a predetermine

time"; column 3, lines 40 different levels of alarms) reaches a predetermined threshold

(column 8, line 65).

Claim 2. The control system ("control systems",column 12, line 65) according to claim 1, wherein the control means can set a threshold of a generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms)of an alarm which is generated from the alarm generation means, grasps the generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms)of the alarm, and gives warning (e.g., alarm via detectors, column 2, lines 20-29) when the generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms) reaches the set threshold.

Claim 3. The control system ("control systems",column 12, line 65)according to claim 1, wherein the process apparatus has a plurality of detection (multiple threshold detectors,, column 3, lines 15-16)means, and when an alarm is generated from one detection means, the control means automatically starts grasping (i.e., sensor, the alarm generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms).

Claim 4. The control system ("control systems",column 12, line 65)according to claim 1, wherein the process apparatus has a plurality of detection (multiple threshold detectors,, column 3, lines 15-16)means, and when an alarm is generated from a

preset detection means, the control means starts grasping the alarm generation

("alarm generation", columns 5-6, lines 68,1-3) state.

Claim 5. The control system ("control systems",column 12, line 65)according to claim

1, wherein the alarm generation ("alarm generation", columns 5-6, lines 68,1-3)means

is provided in the control means.

Claim 6. The control system ("control systems",column 12, line 65)according to claim

1, wherein the generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms)of

the alarm is a number of alarm generations within a predetermined time.

Claim 7. The control system ("control systems",column 12, line 65)according to claim

1, wherein the generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms) of

the alarm is a time from an alarm generation ("alarm generation", columns 5-6, lines

68,1-3) to a next alarm generation.

Claim 8. A control system ("control systems",column 12, line 65)comprising: control

means that controls a plurality of process apparatuses, which perform predetermined

processes on an object to be processed, based on information (e.g., alarm messages,

column 2, lines 5-9) to be detected in the process apparatuses ("display...to show

current disturbances" column 6, lines 23-28); and alarm generation ("alarm generation",

columns 5-6, lines 68,1-3) means which generates an alarm when the information

(e.g., alarm messages, column 2, lines 5-9) to be detected is off a (if process can work

if required if it is inactive, column 8, lines 31-41) predetermined range (column 8, line

63), the control means including a plurality of apparatus control units that respectively

control the plurality of process apparatuses based on plural pieces of information (e.g.,

alarm messages, column 2, lines 5-9) to be detected in the individual process

apparatuses (e.g., of individual processes, filters sorts all alarms", column 3, lines 28-

36) a host computer ("summary system dispaly",column 3, lines 31-33)that receives

partial information (e.g., alarm messages, column 2, lines 5-9) from the individual

process apparatuses and controls the individual process apparatuses based on that

information (e.g., alarm messages, column 2, lines 5-9), and a control apparatus

("control systems",column 12, line 65) that receives all or nearly all information (e.g.,

alarm messages, column 2, lines 5-9) from the individual process apparatuses and

controls the individual process apparatuses (e.g., of individual processes, filters sorts

all alarms", column 3, lines 28-36) based on that information (e.g., alarm messages,

column 2, lines 5-9), the control apparatus ("control systems",column 12, line 65)

including means that collects information (e.g., alarm messages, column 2, lines 5-9)

received from the individual control units and alarm information (e.g., alarm messages,

column 2, lines 5-9) (e.g., of an apparatus collecting data prior to the alarm on a serial

display, column 3, lines 28-41) received from the alarm generation means, means that

analyzes the collected information (e.g., alarm messages, column 2, lines 5-9), and

means that grasps a generation state (spec. pg. 40, generation state, "the number of

alarms generated with a predetermine time"; column 3, lines 40 different levels of

alarms)of the alarm generated based on the alarm information (e.g., alarm messages,

column 2, lines 5-9), and gives warning (e.g., alarm via detectors, column 2, lines 20-

29)when the generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms)

reaches a predetermined threshold (column 8, line 65).

Claim 9. The control system ("control systems",column 12, line 65)according to claim

8, wherein the means that gives warning can set a threshold of a generation state

(spec. pg. 40, generation state, "the number of alarms generated with a predetermine

time"; column 3, lines 40 different levels of alarms) of an alarm which is generated from

the alarm generation ("alarm generation", columns 5-6, lines 68,1-3)means.

Claim 10. The control system ("control systems",column 12, line 65)according to claim

8, wherein the control apparatus ("control systems",column 12, line 65)

further includes means that outputs a result of the analysis and the generation

state of the alarm ("alarm generation", columns 5-6, lines 68,1-3)

Claim 11. The control system ("control systems",column 12, line 65)according to claim

8, wherein each of the process apparatuses has a plurality of detection (multiple

threshold detectors,, column 3, lines 15-16)means, and when an alarm is generated

from one detection means, the control apparatus ("control systems",column 12, line

65) automatically starts grasping the alarm generation ("alarm generation", columns 5-

6, lines 68,1-3)state.

Claim 12. The control system ("control systems",column 12, line 65)according to claim

8, wherein each of the process apparatuses has a plurality of detection (multiple

threshold detectors,, column 3, lines 15-16)means, and when an alarm is generated

from a preset detection means, the control apparatus ("control systems",column 12,

line 65) starts grasping the alarm generation state ("alarm generation", columns 5-6,

lines 68,1-3)

Claim 13. The control system ("control systems",column 12, line 65)according to claim

8, wherein the alarm generation ("alarm generation", columns 5-6, lines 68,1-3) means

is provided in the control means.

Claim 14. The control system ("control systems",column 12, line 65)according to claim

8, wherein the generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms) of

the alarm is a number of alarm generations within a predetermined time.

Claim 15. The control system ("control systems",column 12, line 65)according to claim

8, wherein the generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms) of

the alarm is a time from an alarm generation ("alarm generation", columns 5-6, lines

68,1-3) to a next alarm generation.

Claim 16. A control method that controls a process (column 14, lines 27)apparatus,

which performs a predetermined process (e.g., abnormal conditions, column 5,line

9)on an object to be processed (e.g., "material flow process", column 5, line 23), based

on plural pieces of information (e.g., alarm messages, column 2, lines 5-9) to be

detected in the process apparatus ("display...to show current disturbances" column 6,

lines 23-28), the method comprising: grasping a generation state (spec. pg. 40,

generation state, "the number of alarms generated with a predetermine time"; column

3, lines 40 different levels of alarms)of an alarm, which is generated when the detected

information (e.g., alarm messages, column 2, lines 5-9) is off a (if process can work if

required if it is inactive, column 8, lines 31-41) predetermined range (column 8, line

63); and giving warning when the generation state (spec. pg. 40, generation state, "the

number of alarms generated with a predetermine time"; column 3, lines 40 different

levels of alarms)reaches a predetermined threshold (column 8, line 65).

Claim 17. The control method according to claim 16, further comprising setting a

threshold of a generation state (spec. pg. 40, generation state, "the number of alarms

generated with a predetermine time"; column 3, lines 40 different levels of alarms)

(columns 8 & 9, lines 65, 1-7) of the alarm which is generated when detected

process information (e.g., alarm messages, column 2, lines 5-9) is off a (if process can

work if required if it is inactive, column 8, lines 31-41) predetermined range (column 8,

line 63), grasping the generation state (spec. pg. 40, generation state, "the number of

alarms generated with a predetermine time"; column 3, lines 40 different levels of

alarms) of the alarm, and giving warning when the generation state (spec. pg. 40,

generation state, "the number of alarms generated with a predetermine time"; column

3, lines 40 different levels of alarms) reaches the set threshold.

Claim 18. The control method according to claim 16, wherein the process apparatus

has a plurality of detection (multiple threshold detectors,, column 3, lines 15-

16)means, (e.g., of an apparatus collecting data prior to the alarm on a serial display,

column 3, lines 28-41) and when an alarm is generated from one detection means,

grasping the alarm generation ("alarm generation", columns 5-6, lines 68,1-3) state

automatically starts.

Claim 19. The control method according to claim 16, wherein the process apparatus

has a plurality of detection (multiple threshold detectors,, column 3, lines 15-

16)means, and when an alarm is generated from a preset detection means, grasping

the alarm generation ("alarm generation", columns 5-6, lines 68,1-3) state starts.

Claim 20. The control method according to claim 16, wherein the generation state

(spec. pg. 40, generation state, "the number of alarms generated with a predetermine

time"; column 3, lines 40 different levels of alarms) of the alarm is a number of alarm

generations e.g., of alarms on a summary display unit, column 3, lines 36-41)within a

predetermined time.

Claim 21. The control method according to claim 16, wherein the generation state

(spec. pg. 40, generation state, "the number of alarms generated with a predetermine

time"; column 3, lines 40 different levels of alarms) of the alarm is a time from an alarm

generation ("alarm generation", columns 5-6, lines 68,1-3) to a next alarm generation.

Claim 22. A process system comprising a process apparatus which performs a

predetermined process (e.g., abnormal conditions, column 5,line 9)on an object to be

processed (e.g., "material flow process", column 5, line 23), and a control system

("control systems",column 12, line 65) which controls the process apparatus, the

control system ("control systems",column 12, line 65)including: control means

that controls a process (column 14, lines 27) apparatus, which performs a

predetermined process (e.g., abnormal conditions, column 5,line 9)on an

object to be processed (e.g., "material flow process", column 5, line 23), based on

information (e.g., alarm messages, column 2, lines 5-9) to be detected in the process

apparatus; and alarm generation ("alarm generation", columns 5-6, lines 68,1-3)means

which generates an alarm when the detected information (e.g., alarm messages,

column 2, lines 5-9) is off a (if process can work if required if it is inactive, column 8,

lines 31-41) predetermined range (column 8, line 63), wherein the control means

grasps a generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms)of the alarm which is generated from the alarm generation means, and gives warning (e.g., alarm via detectors, column 2, lines 20-29)when the generation state (spec. pg. 40, generation state, "the number of alarms generated with a predetermine time"; column 3, lines 40 different levels of alarms) reaches a predetermined threshold (column 8, line 65).

Claim 23. A process system (i.e., "an alarm management system", column 15, line, 5) comprising which performs a predetermined process (e.g., abnormal conditions, column 5,line 9)on an object to be processed (e.g., "material flow process", column 5, line 23), and a control system ("control systems",column 12, line 65)which controls the process apparatus, the control system ("control systems",column 12, line 65)including: control means that controls a plurality of process apparatuses, which perform predetermined processes on an object to be processed (e.g., "material flow process", column 5, line 23), based on information (e.g., alarm messages, column 2, lines 5-9) to be detected in the process apparatuses; and alarm generation ("alarm generation", columns 5-6, lines 68,1-3)means which generates an alarm when the information (e.g., alarm messages, column 2, lines 5-9) to be detected is off a (if process can work if required if it is inactive, column 8, lines 31-41) predetermined range (column 8, line 63), the control means including a plurality of apparatus control units that respectively control the plurality of process apparatuses based on plural pieces of information (e.g., alarm messages, column 2, lines 5-9) to be detected in the individual process

apparatuses, a host computer ("summary system dispaly",column 3, lines 31-33)that

receives partial information (e.g., alarm messages, column 2, lines 5-9) from the

individual process apparatuses and controls the individual process apparatuses based

on that information (e.g., alarm messages, column 2, lines 5-9), and a control

apparatus that receives all or nearly all information (e.g., alarm messages, column 2,

lines 5-9) from the individual process apparatuses and controls the individual process

apparatuses based on that information (e.g., alarm messages, column 2, lines 5-9),

(e.g., of individual processes, filters sorts all alarms", column 3, lines 28-36) the control

apparatus ("control systems",column 12, line 65) including means that collects

information (e.g., alarm messages, column 2, lines 5-9) received from the individual

control units and alarm information (e.g., alarm messages, column 2, lines 5-9)

received from the alarm generation ("alarm generation", columns 5-6, lines 68,1-

3)means, means that analyzes the collected (e.g., of individual processes, filters sorts

all alarms", column 3, lines 28-36) information (e.g., alarm messages, column 2, lines

5-9), and means that grasps a generation state (spec. pg. 40, generation state, "the

number of alarms generated with a predetermine time"; column 3, lines 40 different

levels of alarms)of the alarm generated based on the alarm information (e.g., alarm

messages, column 2, lines 5-9), and gives warning (e.g., alarm via detectors, column

2, lines 20-29)when the generation state (spec. pg. 40, generation state, "the number

of alarms generated with a predetermine time"; column 3, lines 40 different levels of

alarms) reaches a predetermined threshold (column 8, line 65).

Claim 24. A computer readable storage (column12, lines 1-13)medium containing

software that allows a computer to control a process apparatus, which performs a

predetermined process (e.g., abnormal conditions, column 5,line 9) on an object to be

processed (e.g., "material flow process", column 5, line 23), based on plural pieces of

information (e.g., alarm messages, column 2, lines 5-9) to be detected in the process

apparatus, (e.g., of individual processes, filters sorts all alarms", column 3, lines 28-36)

wherein the software grasps a generation state of an alarm, which is generated when

the detected information (e.g., alarm messages, column 2, lines 5-9) is off a (if process

can work if required if it is inactive, column 8, lines 31-41) predetermined range, and

gives warning (e.g., alarm via detectors, column 2, lines 20-29)when the generation

state (spec. pg. 40, generation state, "the number of alarms generated with a

predetermine time"; column 3, lines 40 different levels of alarms) reaches a

predetermined threshold (column 8, line 65).

Claim 25. A computer program (inherent property of a computer, column12, lines 1-13)

containing software that allows a computer (column12, lines 1-13) to control a process

apparatus, which performs a predetermined process (e.g., abnormal conditions,

column 5,line 9) on an object to be processed, based on plural pieces of information

(e.g., alarm messages, column 2, lines 5-9) to be detected in the process apparatus,

wherein the software grasps a generation state (spec. pg. 40, generation state, "the

number of alarms generated with a predetermine time"; column 3, lines 40 different

levels of alarms)of an alarm, which is generated when the detected information (e.g.,

alarm messages, column 2, lines 5-9) is off a (if process can work if required if it is

inactive, column 8, lines 31-41) predetermined range (column 8, line 63), and gives

warning when the generation state (spec. pg. 40, generation state, "the number of

alarms generated with a predetermine time"; column 3, lines 40 different levels of

alarms) reaches a predetermined threshold (column 8, line 65).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicants'
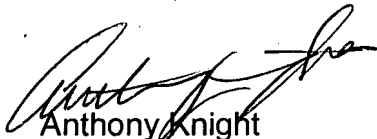
disclosure:

- US Patent 4,997,490 teaches a method for cleaning and rinsing wafers used in the production of integrated circuits.
- US Patent 6,314,328 teaches an alarm event generation method and apparatus for signaling an alarm for a process control system.
- US Patent 6,439,962 teaches an apparatus performs at least on of cleaning and drying a semiconductor wafer while rotating the semiconductor wafer.
- US Patent Application 2002/0124646 teaches a method for correctly detecting the level of a processing liquid.
- US Patent 6,650,409 teaches a semiconductor device and a semiconductor device.
- US Patent 4,816,208 teaches a hybrid parallel/serial alarm management system in which sensor signals are intelligently processed to produce abnormality indication signals.
- US Patent 5,170,359 teaches a method and apparatus for detecting transient episodes includes parallel connected transient episode detectors (peripheral devices) to measure short-lived disturbances concurrently, each uniquely associated in series with one of a multiplicity of analog sensors.
- US Patent 5,486,998 teaches a process controller is disclosed for controlling a process.
- Japanese Patent 10323607 teaches a bellows pump for injecting cleaning liquid for semiconductor wafer cleaning.
- Maeda et al., "Threshold Setting Assisted by Numerical Analysis Methods in Automatic Visual Inspection Using Gray-Scale Image Comparison" teaches a method to support fast product-specific threshold setting.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

3715.

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Anthony Knight 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

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